

REMARKS

Claims 1-44 are pending in the current application. Claims 1, 12, 23, 34 and 39 are independent claims. Claim 44 is added by this Amendment.

Allowable Subject Matter

Initially, Applicant appreciates the Examiner's indication that claims 6-11, 17-22 and 28-33 would be allowable if rewritten into independent form. In view of the remarks below, Applicant submits that each pending claim is allowable over the cited art.

35 U.S.C. §103(a) Lee in view of Ammer

Claims 1-5, 12-16, 23-27 and 34-43 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Lee (2003/0050086) in view of Ammer (2004/0091067). Applicant respectfully traverses this art grounds of rejection.

Lee is directed to a method of adjusting a signal power in a variable data rate mode in a mobile communication system. Applicant agrees with the Examiner in that "Lee does not explicitly disclose determining the presence of a packet on the rate indicator channel based on a likelihood generated by a maximum likelihood decoder that decodes the rate indicator channel" (See Page 3 of the 12/23/2008 Office Action). However, the Examiner alleges that Ammer discloses this particular deficiency of Lee.

Ammer is directed to a system and method for one-pass blind transport format detection (BTFD). Ammer teaches that data frames can be transmitted in accordance with any of a number of different potential transmission formats that are associated with different valid CRC bits (e.g., see [0006]-[0007] of Ammer). BTFD corresponds to the scenario where the receiver does not yet know which transmission format is being used to convey the data frames. Thus, a

Viterbi decoder is used to translate symbols from the receiver antenna into bits (e.g., see [0009]-[0010] of Ammer). After this conversion, each frame is tested against the CRC bits for each of the formats to determine whether a valid data frame has been received (e.g., see [0010] of Ammer). While the above-references have been made with respect to the Background section of Ammer, the same general functionality holds true in FIG. 8 of Ammer as well, where the Viterbi decoder is used for symbol-to-bit conversion (804 and 806) and the converted bits are then compared to the CRCs of the transmission formats (814), and if the CRC check fails the frame is ignored.

Applicant believes that the use of the Viterbi decoder in Ammer is not the same as the claimed invention. In Ammer, the Viterbi decoder converts the signal-spectrum from the receiver into a series of bits, irrespective of whether the signal-spectrum holds an actual data-frame or background noise. In other words, if there is no actual data frame present, the Viterbi decoder will still generate a bit-sequence to be compared against the CRCs of the transmission formats. Thus, the Viterbi decoder cannot be said to determine packet presence; rather, packet presence is determined if the CRC comparison results in a match.

More fundamentally, as is known in the art, the Viterbi decoder in Ammer uses a likelihood algorithm iteratively to determine whether a particular bit is a "0" or a "1". This is based on the amplitude of a given portion of the input signal-spectrum from the receiver. Whether the "0" or "1" corresponds to a portion of an actual data frame can only be determined in Ammer when the whole bit-sequence is converted and then compared against the CRC bits. This is not the same as "determining the presence of a packet on the rate indicator channel based on a likelihood generated by a maximum likelihood decoder that decodes the rate indicator channel" as recited in claim 1, for example. The Viterbi decoder in Ammer is not determining

packet presence, but is simply iteratively determining, as best it can, whether an input signal-spectrum amplitude is more likely to correspond to a “0” or a “1”.

In view of the above remarks, Applicant respectfully submits that Lee in view of Ammer cannot disclose or suggest “determining the presence of a packet on the rate indicator channel based on a likelihood generated by a maximum likelihood decoder that decodes the rate indicator channel” as recited in independent claim 1 and similarly recited in independent claims 12, 23, 34 and 39.

As such, claims 2-5, 13-16, 24-27, 35-38 and 40-43, dependent upon independent claims 1, 12, 23, 34 and 39, respectively, are likewise allowable over Lee in view of Ammer at least for the reasons given above with respect to independent claims 1, 12, 23, 34 and 39, respectively.

Applicant respectfully requests that the Examiner withdraw this art grounds of rejection.

Allowance also requested for newly added dependent claim 44

As discussed above, Ammer relies upon CRC-matching to determine whether a series of bits corresponds to a data frame, or to garbage data (e.g., background noise, a frame with errors, etc.). In Applicant’s Background section of the Specification, Applicant discussed that certain types of transmission channels, such as rate indicator channels, can be bogged down by the overhead required for CRC bits (e.g., see [0008], “*While a CRC may allow error detection in data transmissions, in systems having channels which transmit sporadically and are burst oriented the overhead for utilizing a CRC on their corresponding rate indicator channel may be too high*”). Accordingly, Applicant has added claim 44, which recites “wherein the packet does not include cyclical redundancy check (CRC) bits”. Clearly, Ammer’s data frame’s transfer requires the use of CRC bits to validate the data frame (e.g., see 322 of FIG. 3, 814 of FIG. 8,

etc.). Ammer does not disclose or suggest a scenario by which CRC bits are not included with a data frame, and wherein a maximum likelihood decoder is instead used to determine packet presence (i.e., not merely whether a symbol corresponds to "0" or "1", but whether the bits themselves correspond to a data packet), as recited in claim 44. Rather, for reasons discussed in the preceding section, Ammer simply discloses symbol-to-bit conversions irrespective of whether a data frame is actually present.

Reconsideration and issuance of the present application is respectfully requested.

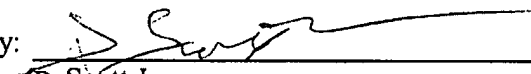
CONCLUSION

In light of the remarks contained herein, Applicant submits that the application is in condition for allowance, for which early action is requested.

Please charge any fees or overpayments that may be due with this response to Deposit Account No. 17-0026.

Respectfully submitted,

Dated: 4/21/09

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